

SECTION 08 4210**Glass Wall Systems****PART 1 - GENERAL****1.01 SUMMARY**

A. This section includes:

1. Solid wood clad heavy glass door rails
2. Solid wood sidelite rails.

B. Related work in other sections:

1. Lock cylinders for tempered glass doors are specified in Division 8 section "Finished Hardware".

1.02 SUBMITTALS

A. Product Data: Submit Manufacturer's product data for all glass wall systems including:

1. Manufacturer's standard details and fabrication method.
2. Data on finishing, hardware and accessories.
3. Recommendations for maintenance and cleaning of exterior finish surfaces.
4. Test data on fabricated door.

B. Shop drawings for each Frameless Glass Wall System are required, including:

1. Layout and installation details.
2. Elevations at 1/4-inch scale.
3. Detail sections of fittings.
4. Hardware mounting heights.
5. Anchorage and reinforcement.
6. Glazing details.

C. Samples for approval:

1. Submit pairs of samples of each specified wood species on 6-inch-long sections of profile or formed shapes.
2. Submit samples of glass approximately 6 inches square showing the edge conditions.

1.03 **QUALITY ASSURANCE**

- A. Installer qualifications: Engage an experienced installer who has completed installations of Frameless Glass Wall System similar in design and extent to those required for the project and whose work has resulted in construction with a record of successful performance.
- B. Manufacturer's qualifications: Provide all glass wall systems produced by a firm experienced in manufacturing systems that are similar to those indicated for this project and that have a record of successful performance. All door rail systems must be tested.
- C. Single source responsibility: Obtain all glass wall systems from a single manufacturer, to ensure full compatibility and warranty of parts.
- D. Design criteria: The drawings indicate the size, profile and dimensional requirements of all glass wall systems required and are based on the specific types and models indicated. Frameless Glass Wall Systems by other manufacturers may be considered, provided deviations in dimensions and profiles are minor and do not change the design concept as judged by the Architect. The burden of proof of equality is on the proposer.
- E. Safety glass standard: Provide tempered glass components that comply with ANSI Z97.1 and testing requirements of CPSC 16 CFR 1201 Category II.

1.04 **DELIVERY, STORAGE, AND HANDLING**

- A. Deliver all Frameless Glass Wall System and related components in the manufacturer's original protective packaging. Do not deliver units until the work is ready for their installation.
 - 1. Inspect components for damage upon delivery. Unless minor defects in wood components can be made to meet the Architect's specifications and satisfaction, damaged parts should be removed and replaced.

1.05 **PROJECT CONDITIONS**

- A. **Field Measurements:** Check opening by accurate field measurement before fabrication. Show recorder measurements on shop drawings. Coordinate fabrication schedule with construction progress to avoid delay of the work and possible damage to the finished product.
 - 1. Where necessary, proceed with fabrication without measurement and coordinate fabrication tolerances to insure proper fit.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURER'S

- A. Basis of design: Design is based on a Frameless Glass Wall System featuring heavy tempered glass secured to a WOODnLITE Clamp Rail System, manufactured by:

WOODnLITE Doors and Sidelites Co., Inc. (WOODnLITE)

Tel: (800) 421-6144 Fax: (800) 587-7501

Email: info@WOODnLITE.com

www.WOODnLITE.com

- B. Subject to compliance with requirements, Frameless Glass Wall System from other manufacturers meeting the specified requirements may be acceptable.

2.02 MATERIALS

- A. LEED® requirements:

- Materials: All solid wood products specified for this project shall be sustainably harvested, certified by the Forest Stewardship Council (FSC) or an equivalent certification recognized by LEED. See LEED® Green Building Rating System.
- 2. Regional Materials: Provide a minimum of 50 percent (based on cost) of building materials that are regionally extracted, processed, and manufactured.

- B. **Glass:** Provide flat, fully tempered glass in thickness indicated for doors and sidelites. Comply with requirements of ASTM C 1048 for FT (fully tempered), Condition A (uncoated surfaces), Type 1 (transparent) Class 1 (clear) glass. Provide products of thickness indicated that have been tested for surface and edge compression according to ASTM C 1048 and for impact strength according to 16 CFR Part 1201 for Category II materials.

1. Thickness: 1/2 inch (12 mm)
2. Edge treatment: Provide machine ground and polished edges for exposed glass edges of doors and sidelites and flat ground edges for butting glass edges.
3. Glass Manufacturers:_____.

- C. **Fittings, General:** Provide WOODnLITE WG275 Rails in required profile, size and glass thickness as selected by the Architect. Comply with requirements indicated for kind of finish.

1. Aluminum Door Rail Clamp: Provide fittings fabricated from aluminum extrusions of alloy and temper recommended by manufacturer for use intended and required for application of finish indicated, but not less than strength and durability properties specified in ASTM B 221 for 6063-T5.

- D. **Door Rail Systems:** Provide wood door rail systems in the specified wood species. The system shall include, but is not limited to, wood door rails, push-pull handles, bottom locks, center locks, and strike housings. Comply with GANA guidelines and hardware manufacturer requirements for size restrictions. Door rails shall allow for jamb adjustment in or out with standard hardware. The system shall include, but is not limited to, end caps, blocking, and preparation.
1. Profile: Square 2-3/4"
 2. Profile: Beveled 2-3/4"
 3. Height: 4 - 10 inch – Retrofit Option
- E. **Accessory Fittings:** Provide the manufacturer's standard accessory fittings as indicated. Ensure compliance with the specified finish requirements for the door fittings.
- F. **Anchors and Fasteners:** Manufacturer's standard concealed anchors and fastenings. Do not use exposed fasteners.
- G. **Weatherstripping:** Can be applied to edges of glass to help reduce air infiltration. The weatherstripping shall be pile and replaceable without removing doors from opening.
- H. .

2.03 **HARDWARE**

- A. **General:** Provide heavy-duty hardware units as indicated, scheduled or required for operation of each type of door, including the following items of sizes, numbers and type recommended by the manufacturer for the type of service required. Provide color finish for exposed hardware.
- B. **Overhead Concealed Door Closers** with extra-long spindle.
- C. **Floor Mounted Closers** are double acting and supplied with cement box and cover plate. Cover plates in many finishes are available. Provide bottom adjustable arm, top adjustable pivot and finished cover plate if required. Comply with manufacturer's recommendations for closer size, depending upon door size, and anticipated frequency of use.

Include the following:

1. Non-hold-open closers must comply with ADA Handicap requirements.
 2. Consult manufacturer for closer recommendations on doors over 264 lbs.
- D. **Push-Pull Set:** Provide handles selected by the Architect and supplied by **WOODnLITE Doors and Sidelites**.
- E. **Locks:** Equip doors with manufacturer's locksets that accept a standard cylinder with related components.

2.04 **FABRICATION**

- A. **General:** Fabricate Frameless Glass Wall System components to designs and sizes indicated. Size of door and profile requirements of fittings and hardware are indicated on the drawings.
1. Locate and provide holes and cutouts in glass to receive hardware before tempering glass. Do not permit cutting, drilling or other alterations to glass after tempering.

2. Fabricate work to accommodate required fittings, hardware, anchors, reinforcement, and accessory items.
- B. **Prefabrication:** Complete fabrication, assembly, stain grade preparation, hardware application and other work to the greatest extent possible before shipment to the project site. Disassemble components only as necessary for shipment and installation.
- C. **Continuity:** Maintain accurate relation of planes and angles with hairline fit of contracting members.
- 2.05 **WOOD SPECIES:** (List one or more)
- A. Clear Alder
Maple
White Oak
Rift White Oak
Red Oak
Walnut
Mahogany
Douglas Fir Vertical Grains
Other species may be specified
- B. All wood rail profiles are stain grade and ready for final staining or clear sealing on site.
- C. To ensure a smooth and even appearance on hardwood, use only a professional finisher.

PART 3 – EXECUTION

3.01 **EXAMINATION**

- A. Examine substrates and supports with the installer, present for compliance with requirements indicated, installation tolerances and other conditions that affect the installation of Frameless Glass Wall entrances and storefronts. Correct unsatisfactory conditions before proceeding with the installation.
1. Do not proceed with installation until unsatisfactory conditions are corrected.

3.02 **INSTALLATION**

- A. Install Frameless Glass doors and associated components in accordance with manufacturer's printed instructions and recommendations.
1. Verify units' level, plumb and true line.
 2. Verify all inserts and hardware are secured to the rails and glass.

3.03 **ADJUSTING**

- A. Adjust doors and hardware to provide a tight fit at meeting points for smooth operation.
- B. Hardware: Adjust operating hardware to ensure proper operation. Set, seal, and grout floor closer cases. Coordinate cylinder installation.

3.04 **CLEANING**

- A. Clean door and frame surfaces after installation, exercising care to avoid damage to the finish.
- B. Clean glass surfaces after installation, complying with requirements contained in the "Glass and Glazing" section for cleaning and maintenance. Remove excess dirt or other substances.

3.05 **PROTECTION**

- A. Institute protective measures required throughout the remainder of the construction period to ensure that Frameless Glass Wall System do not incur any damage or deterioration, other than normal weathering, at the time of acceptance.

END OF SECTION